

## Publication List

**Researcher ID: D-4198-2009** (<http://www.researcherid.com/rid/D-4198-2009>)

Sum of the Times Cited: **5755** h-index: **38**

### Representative publications

1. "Synthesis of Octaaryl Naphthalenes and Anthracenes with Different Substituents"  
Suzuki, S.; Itami, K.\*; Yamaguchi, J.\*  
*Angew. Chem., Int. Ed.* **2017**, *56*, 15010-15013.
2. "Cross-coupling of Aromatic Esters and Amides"  
Takise, R.; Muto, K.; Yamaguchi, J.\*  
*Chem. Soc. Rev.* **2017**, *46*, 5864-5888 (Review).
3. "Rh-catalyzed regiodivergent hydrosilylation of acyl aminocyclopropanes controlled by monophosphine ligands"  
Kondo, H.; Itami, K.; Yamaguchi, J.\*  
*Chem. Sci.* **2017**, *8*, 3799-3803.
4. "Decarbonylative Diaryl Ether Synthesis by Pd and Ni Catalysis"  
Takise, R.; Isshiki, R.; Muto, K.; Itami, K.\*; Yamaguchi, J.\*  
*J. Am. Chem. Soc.* **2017**, *139*, 3340-3343.
5. "C-H Arylation and Alkenylation of Imidazoles by Nickel Catalysis: Solvent-accelerated Imidazole C-H Activation"  
Muto, K.; Hatakeyama, T.; Yamaguchi, J.\*; Itami, K.\*  
*Chem. Sci.* **2015**, *6*, 6792-6798.
6. "Decarbonylative Organoboron Cross-coupling of Esters by Nickel Catalysis"  
Muto, K.; Yamaguchi, J.\*; Musaev, D. G.\*; Itami, K.\*  
*Nature Commun* **2015**, *6*, 7508.
7. C-H Activation Generates Period-Shortening Molecules That Target Cryptochrome in the Mammalian Circadian Clock"  
Oshima, T.; Yamanaka, I.; Kumar, A.; Yamaguchi, J.; Nishiwaki Ohkawa, T.; Muto, K.; Kawamura, R.; Hirota, T.; Yagita, K.; Irle, S.; Kay, S. A.; Yoshimura, T.\*; Itami, K.\*  
*Angew. Chem., Int. Ed.* **2015**, *54*, 7193-7197.
8. "Synthesis and Characterization of Hexaarylbenzenes with Five or Six Different Substituents Enabled by Programmed Synthesis"  
Suzuki, S.; Segawa, Y.; Itami, K.\*; Yamaguchi, J.\*  
*Nature Chem.* **2015**, *7*, 227-233.
9. "Concise Syntheses of Dictyodendrins A and F by a Sequential C-H Functionalization Strategy"  
Yamaguchi, A. D.; Chepiga, K. M.; Yamaguchi, J.\*; Itami, K.\*; Davies, H. M. L.  
*J. Am. Chem. Soc.* **2015**, *137*, 644-647.
10. "Stereodivergent Synthesis of Arylcyclopropylamines by Sequential C-H Borylation and Suzuki-Miyaura Coupling"  
Miyamura, S.; Araki, M.; Suzuki, T.; Yamaguchi, J.\*; Itami, K.\*  
*Angew. Chem., Int. Ed.* **2015**, *54*, 846-851.
11. "Key Mechanistic Features of the Ni-catalyzed C-H/C-O Biaryl Coupling with Azoles and NaphthalenylPivalates"  
Xu, H. Muto, K.; Yamaguchi, J.; Itami, K.\*; Musaev, D.G.\*  
*J. Am. Chem. Soc.* **2014**, *136*, 14834-14844.
12. "β-Selective C-H Arylation of Pyrroles Leading to Concise Syntheses of Lamellarins C and I"  
Ueda, K.; Amaiike, K.; Maceiczkyk, R. M; Itami, K.\*; Yamaguchi, J.\*  
*J. Am. Chem. Soc.* **2014**, *136*, 13226-13232.
13. "Ni-Catalyzed α-Arylation of Ketones with Phenol Derivatives"  
Takise, R.; Muto, K.; Yamaguchi, J.\*; J. Itami K.\*  
*Angew. Chem., Int. Ed.* **2014**, *53*, 6791-6794.
14. "Aromatic C-H Coupling with Hindered Arylboronic Acids by Pd/Fe Dual Catalysts"

- Yamaguchi, K.; Kondo, H.; Yamaguchi, J.\*; Itami, K.\*  
*Chem. Sci.* **2013**, 3753–3757.
15. “Isolation, Structure, and Reactivity of an Arylnickel(II) Pivalate Complex in Catalytic C–H/C–O Biaryl Coupling”  
Muto, K.; Yamaguchi, J.\*; Lei, A.\*; Itami, K.\*  
*J. Am. Chem. Soc.* **2013**, 135, 16384–16387.
  16. “C–H Alkenylation of Azoles with Enols and Esters by Nickel Catalysis”  
Lingkui, M.; Kamada, Y.; Muto, K.; Yamaguchi, J.\*; Itami, K.\*  
*Angew. Chem., Int. Ed.* **2013**, 52, 38, 10048–10051.
  17. “Aromatic C–H Coupling with Hindered Arylboronic Acids by Pd/Fe Dual Catalysts”  
Yamaguchi, K.; Kondo, H.; Yamaguchi, J.\*; Itami, K.\*  
*Chem. Sci.* **2013**, 3753–3757.
  18. “C–H Bond Functionalization: Emerging Synthetic Tools for the Synthesis of Natural Products and Pharmaceuticals”  
Yamaguchi, J.\*; Yamaguchi, A. D.; Itami, K.\*  
*Angew. Chem., Int. Ed.* **2012**, 51, 8960–9009 (Review).
  19. “Decarbonylative C–H Coupling of Azoles and Aryl Esters: Unprecedented Nickel Catalysis and Application to the Synthesis of Muscoride A”  
Amaike, K.; Muto, K.; Yamaguchi, J.\*; Itami, K.\*  
*J. Am. Chem. Soc.* **2012**, 134, 13573–13576.
  20. “Nickel-Catalyzed C–H/C–O Coupling of Azoles with Phenol Derivatives”  
Muto, K.; Yamaguchi, J.; Itami, K.\*  
*J. Am. Chem. Soc.* **2012**, 134, 169–172.
  21. “Synthesis of Dragmacidin D via Direct C–H Couplings”  
Mandal, D.; Yamaguchi, A. D.; Yamaguchi, J.\*; Itami, K.\*  
*J. Am. Chem. Soc.* **2011**, 133, 19660–19663.

#### Under revision, submitted and to be Submitted

1. “TBA: Dearomative Transformation”  
Komatsuda, M. Muto, K.\*; Yamaguchi, J.\*  
**2018**, to be submitted.
2. “TBA: Decarbonylative Transformation”  
Many students with Muto, K.; Yamaguchi, J.\*  
**2018**, to be submitted.
3. “TBA: Fully Arylated Molecules”  
Asako, T.; Suzuki, S.; Itami, K.; Muto, K.; Yamaguchi, J.\*  
**2018**, to be submitted.
4. “TBA: Decarbonylative Transformation”  
Okita, T.; Muto, K.; Yamaguchi, J.\*  
**2018**, to be submitted.
5. “TBA: C–C Bond Activation”  
Kondo, H.; Miyamura, S.; Kobayashi, C.; Arifin, I.; Irle, S.; Itami, K. Yokogawa, D.\* Yamaguchi, J.\*  
**2018**, to be submitted.
6. “TBA: Decarbonylative Transformation”  
Matsushita, K.; Takise, R.; Suzuki, S.; Hisada, T.; Muto, K.; Itami, K.; Yamaguchi, J.\*  
**2018**, submitted.
7. “TBA: Plant Circadian Modulator”  
Uehara, T. N.; Mizutani, Y.; Kuwata, K.; Hirota, T.; Sato, A.; Takao, S.; Matsuo, H.; Nishiwaki-Ohkawa, T.; Yoshimura, T.; Kay, S.; Itami, K.; Kinoshita, T.; Yamaguchi, J.\*; Nakamichi, N.\*  
**2018**, submitted.
8. “TBA: Fully Arylated Molecules”  
Suzuki, S.; Asako, T.; Itami, K.; Yamaguchi, J.\*  
**2018**, submitted.

**Full publications**

1. “Decarbonylative Coupling Reaction of Aromatic Esters”  
Issiki, R.; Okita, T; Muto, K.; [Yamaguchi, J.\\*](#)  
*J. Synth. Org. Chem. Jpn.* **2018**, accepted (Review).
2. “Decarbonylative Aryl Thioether Synthesis by Ni Catalysis”  
Ishitobi, K.; Isshiki, R.; Asahara, K. K.; Lim, C.; Muto, K.; [Yamaguchi, J.](#)  
*Chem. Lett.* **2018**, Accepted.
3. “Decarbonylative C–P Bond Formation using Aromatic Esters and Organophosphorus Compounds”  
Issiki R.; Muto, K.; [Yamaguchi, J.\\*](#)  
*Org. Lett.* **2018**, *20*, 1150–1153.
4. “Design, Synthesis and Evaluation of  $\gamma$ -Turn Mimetics as LSD1-Selective Inhibitors”  
Ota, Y; Miyamura, S; Araki, M; Itoh, Y.; Yasuda, S; Masada, M.; Taniguchi, T.; Sowa, Y.; Sakai, T.; ; Itami, K.; [Yamaguchi, J.\\*](#); Suzuki, T.\*  
*Bioorg. Med. Chem.* **2018**, *26*, 775–785.
5. “Synthesis of fully arylated (hetero)arenes by Coupling Reaction”  
Asako, T.; Muto, K.; [Yamaguchi, J.\\*](#)  
*J. Synth. Org. Chem. Jpn.* **2018**, *76*, 98–110 (Review).
6. “Catalytic  $\alpha$ -Arylation of Ketones with Heteroaromatic Esters”  
Issiki, R.; Takise, R.; Itami, K.; Muto, K.; [Yamaguchi, J.\\*](#)  
*Synlett* **2017**, *28*, 2599–2603 (Invited contribution).
7. “Synthesis of Octaaryl Naphthalenes and Anthracenes with Different Substituents”  
Suzuki, S.; Itami, K.\*; [Yamaguchi, J.\\*](#)  
*Angew. Chem., Int. Ed.* **2017**, *56*, 15010-15013.
8. “Cross-coupling of Aromatic Esters and Amides”  
Takise, R.; Muto, K.; [Yamaguchi, J.\\*](#)  
*Chem. Soc. Rev.* **2017**, *46*, 5864-5888 (Review).  
Highlighted as an Inside Backcover
9. “Thiazole-based sigma-1 receptor ligands: Diversity by late-stage C-H arylation of thiazoles, structure affinity and selectivity relationships and molecular interactions”  
Kokornaczyk, A.; Schepmann, D.; [Yamaguchi, J.](#); Itami, K.; Laurini, E.; Fermeiglia, M.; Pricl, S.; Wünsch, B\*  
*ChemMedChem* **2017**, *12*, 1070–1080.
10. “Theoretical Elucidation of Potential Enantioselectivity in a Pd-Catalyzed Aromatic C-H Coupling Reaction”  
Nishimoto, Y.; Kondo, H.; Yamaguchi, K.; Yokogawa, D.; [Yamaguchi, J.](#); Itami, K.; Irle, S\*  
*J. Org. Chem.* **2017**, *82*, 4900–4906.
11. “Synthesis of Multiply Arylated Pyridines”  
Asako, T.; Hayashi, W.; Suzuki, S.; Amaike, K.; Itami, K.; Muto, K.; [Yamaguchi, J.\\*](#)  
*Tetrahedron* **2017**, *73*, 3669-3676 (Invited contribution).
12. “Rh-catalyzed regiodivergent hydrosilylation of acyl aminocyclopropanes controlled by monophosphine ligands”  
Kondo, H.; Itami, K.; [Yamaguchi, J.\\*](#)  
*Chem. Sci.* **2017**, *8*, 3799–3803.
13. “Decarbonylative Diaryl Ether Synthesis by Pd and Ni Catalysis”  
Takise, R.; Isshiki, R.; Muto, K.; Itami, K.\*; [Yamaguchi, J.\\*](#)  
*J. Am. Chem. Soc.* **2017**, *139*, 3340–3343.  
Most Read Article (March, 2017)  
Highlighted in Chemical Daily, Nikkei-sangyo Shinbun, Phys.org, c<sub>2</sub>W, Science Daily, Chem-Station
14. “Synthesis of Fully Arylated (Hetero)arenes”  
Suzuki, S.; [Yamaguchi, J.\\*](#)  
*Chem. Commun.* **2017**, *53*, 1568–1582 ((Invited contribution, Review).
15. “Structure-Activity Relation of AMOR Sugar Molecule that Activates Pollen-Tubes for Ovular Guidance”  
Jiao J.; Mizukami, A.G.; Sankaranarayanan, S.; [Yamaguchi, J.](#); Itami, K.; Higashiyama, T.\*  
*Plant Physiol.* **2017**, *173*, 354–363 (Invited contribution).
16. “Toward an Ideal Synthesis of (Bio)molecules through Direct Arene Assembling Reactions”

Yamaguchi, J.\*; Itami, K\*

*Bull. Chem. Soc. Jpn.* **2017**, *90*, 367–383 ((Invited contribution, Award accounts).

Most Read Article (December, 2016)

17. “Palladium-Catalyzed Decarbonylative Alkynylation of Aromatic Esters”  
Okita, T.; Kumazawa, K.; Takise, R.; Muto, K.; Itami, K.\*; Yamaguchi, J.\*  
*Chem Lett.* **2017**, *46*, 218–220.  
Most Read Article (November–December, 2016)
18. “Syntheses of Biologically Active 2-Arylcyclopropylamines”  
Miyamura, S.; Itami, K.; Yamaguchi, J.\*  
*Synthesis* **2017**, *49*, 1131–1149 (Review).  
Highlighted as a Front Cover
19. “Palladium-Catalyzed Decarbonylative Cross-Coupling of Azinecarboxylates with Arylboronic Acids”  
Muto, K.; Hatakeyama, T.; Itami, K.\*; Yamaguchi, J.\*  
*Org. Lett.* **2016**, *18*, 5106–5109.
20. “C-H Activation Enables Rapid Structure-Activity Relationship Study of Arylcyclopropyl amines for Potent and Selective LSD1 Inhibitors”  
Miyamura, S.; Araki, M.; Ota, Y.; Itoh, Y.; Yasuda, S.; Masada, M.; Taniguchi, T.; Sowa, Y.; Sakai, T.; Suzuki, T.\*; Itami, K.\*; and Yamaguchi, J.\*  
*Org. Biomol. Chem.* **2016**, *14*, 8576–8585.  
Editors Choice (December, 2016).
21. “Cyanation of Phenol Derivatives with Aminoacetonitriles by Nickel Catalysis”  
Takise, R.; Itami, K.\*; Yamaguchi, J.\*  
*Org. Lett.* **2016**, *18*, 4428–4431.
22. “Nickel-Catalyzed Aromatic C–H Functionalization”  
Yamaguchi, J.\*; Muto, K.; Itami, K.  
*Top Curr. Chem.* **2016**, *374*, 55 (Invited contribution, Review).
23. “The AMOR Arabinogalactan Sugar Chain Induces Pollen-Tube Competency to Respond to Ovular Guidance”  
Mizukami, A. G.; Inatsugi, R.; Jiao, J.; Kotake, T.; Kuwata, K.; Ootani, K.; Okuda, S.; Sankaranarayanan, S.; Sato, Y.; Maruyama, D.; Iwai, H.; Garénaux, E.; Sato, C.; Kitajima, K.; Tsumuraya, Y.; Mori, H.; Yamaguchi, J.; Itami, K.; Sasaki, N.; Higashiya, T.\*  
*Current Biology* **2016**, *26*, 1091–1097.  
Highlighted in Chunichi Shimbun, Asahi Shinbun, Nikkei Shinbun, Saga Shinbun, EurekAlert!, Kyodo Tsushin, goo News, Gunosy, Chem-Station
24. “Development and Elucidation of the Ni-Catalyzed Direct Coupling Reaction”  
Yamaguchi, J.\*; Muto, K.; Itami, K.  
*Chemical Times* **2016**, 1–7 (Invited contribution, Review).
25. “Synthesis of Triarylpyridines in Thiopeptide Antibiotics by Using a C–H Arylation/Ring-Transformation Strategy”  
Amaike, K.; Itami, K.; Yamaguchi, J.\*  
*Chem. Eur. J.* **2016**, *22*, 4384–4388.
26. “Microwave-assisted regioselective direct C–H arylation of thiazole derivatives leading to increased  $\sigma_1$  receptor affinity”  
Kokornaczyk, A.; Schepmann, D.; Yamaguchi, J.; Itami, K.; Wunsch, B.\*  
*Med. Chem. Commun.* **2016**, *7*, 327–331.
27. “C–H Arylation and Alkenylation of Imidazoles by Nickel Catalysis: Solvent-accelerated Imidazole C–H Activation”  
Muto, K.; Hatakeyama, T.; Yamaguchi, J.\*; Itami, K.\*  
*Chem. Sci.* **2015**, *6*, 6792–6798.
28. “Decarbonylative Organoboron Cross-coupling of Esters by Nickel Catalysis”  
Muto, K.; Yamaguchi, J.\*; Musaev, D. G.\*; Itami, K.\*  
*Nature Commun* **2015**, *6*, 7508.  
Highlighted in Science Daily, Phys. Org, Nature Communications Highlights Article
29. “C-H Activation Generates Period-Shortening Molecules That Target Cryptochrome in the Mammalian

## Circadian Clock”

Oshima, T.; Yamanaka, I.; Kumar, A.; [Yamaguchi, J.](#); Nishiwaki Ohkawa, T.; Muto, K.; Kawamura, R.; Hirota, T.; Yagita, K.; Irle, S.; Kay, S. A.; Yoshimura, T.\*; Itami, K.\*

**Angew. Chem., Int. Ed.** **2015**, *54*, 7193–7197.

Highlighted in Chunichi Shimbun, Yahoo! News, Zaikei Shimbun, Monolist, Alpha Galileo JP, EurekAlert! JP, Kagaku, ResearchSEA, Alpha Galileo, EurekAlert!, Biology News Net, ScienceNewline, Science Daily, Medical News Today, Press News Org, Deep Stuff, News Medical, Health Medicine Net, Bio Spectrum, Chemisch2Weekblad, Lab Roots, EN-CPhI.CN, Terra Daily, Open Science World, Sleep Review, Asian Scientist. Selected as Cover of the journal.

30. “Synthesis and Characterization of Hexaarylbenzenes with Five or Six Different Substituents Enabled by Programmed Synthesis”

Suzuki, S.; Segawa, Y.; Itami, K.\*; [Yamaguchi, J.](#)\*

**Nature Chem.** **2015**, *7*, 227–233.

Highlighted in Toyo Keizai, Yahoo! Japan News, Chunichi Shimbun, Asahi Shimbun, Nikkei Shimbun, Nifty News, Nokoniko News, Infoseek News, Nikkei Press News, Science Portal, Japanese Research, JPubb, Mynabi News, Zaikei Shimbun, The Huffington Post, Livedoor News, Bioimpact, Nikkei Biotech, Biglobe News, Ascii, EurekAlert!, ResearchSEA, Science Newline, Phys.Org, Chemicals Technology, Chemistry News, Health Medicine Network, Science Daily, Technobahn, Innovation Reports, Chemistry 2011, RevoScience, Asian Scientist, Kagaku Shimbun, Alpha Galileo, Chemical & Engineering News, Synfacts.

31. “Concise Syntheses of Dictyodendrins A and F by a Sequential C–H Functionalization Strategy”

Yamaguchi, A. D.; Chepiga, K. M.; [Yamaguchi, J.](#)\*; Itami, K.\*; Davies, H. M. L.

**J. Am. Chem. Soc.** **2015**, *137*, 644–647.

Highlighted in EurekAlerts!, Phys.Org., ResearchSEA, Science Newline, Science Daily, Breaking New, Health Medicine Network, Bright Surf, Sci Casts, Medical News Today, Emory News Center, Society for Neuroscience.

32. “Synthesis, Affinity and Structure Activity Relationships of Novel, Selective and Dual Targeting CCR2 and CCR5 Receptor Antagonists”

Junker, A.; Kokornaczyk, A. K.; Frehland, B.; Schepmann, D.; [Yamaguchi, J.](#); Itami, K.; Faust, A.; Hermann, S. Wagner, S.; Kopka, K.; Schäfers, M.; Koch, M.; Weiss, C.; Zweemer, A. J. M. Heitman, L. H.; Wunsch, B\*

**Org. Biomol. Chem.** **2015**, *13*, 2407–2422.

33. “Ni-Catalyzed  $\alpha$ -Arylation of Esters and Amides with Phenol Derivatives”

Koch, E.; Takise, R.; Studer, A.; [Yamaguchi, J.](#)\*; Itami, K.\*

**Chem. Commun.** **2015**, *51*, 855–857.

Top 25 most downloaded articles (Oct–Dec 2014).

34. “Stereodivergent Synthesis of Arylcyclopropylamines by Sequential C–H Borylation and Suzuki–Miyaura Coupling”

Miyamura, S.; Araki, M.; Suzuki, T.; [Yamaguchi, J.](#)\*; Itami, K.\*

**Angew. Chem., Int. Ed.** **2015**, *54*, 846–851.

35. “Key Mechanistic Features of the Ni-catalyzed C–H/C–O Biaryl Coupling with Azoles and NaphthalenylPivalates”

Xu, H. Muto, K.; [Yamaguchi, J.](#); Itami, K.\*; Musaev, D.G.\*

**J. Am. Chem. Soc.** **2014**, *136*, 14834–14844.

Highlighted in EurekAlerts!, Phys.Org., Science Codex, Science Newline, Science Daily, Emory University eScience Commons, Bright Surf, Laboratory Equipment, Web Newswire, Medical News Today, Emory News Center, Jersey Tribune, Science Seeker, News Locker, USA News, News Nom, Bio Portfolio, Toronto Telegraph, Technobahn, The Daily Purrs, Chemistry2011.

36. “ $\beta$ -Selective C–H Arylation of Pyrroles Leading to Concise Syntheses of Lamellarins C and I”

Ueda, K.; Amaike, K.; Maceiczky, R. M.; Itami, K.\*; [Yamaguchi, J.](#)\*

**J. Am. Chem. Soc.** **2014**, *136*, 13226–13232.

Most Read Article (September–October, 2014)

37. “Regioselective Allylic C–H Oxidation of Terminal Alkenes with Pd/sulfoxide-oxazoline Catalyst”

Kondo, H.; Yu, F.; [Yamaguchi, J.](#); Liu, G.\*; Itami, K.\*

**Org. Lett.** **2014**, *16*, 4212–4215.

38. "Ni-Catalyzed  $\alpha$ -Arylation of Ketones with Phenol Derivatives"  
Takise, R.; Muto, K.; [Yamaguchi, J.\\*](#); Itami, K.\*  
**Angew. Chem., Int. Ed.** **2014**, *53*, 6791–6794.  
Highlighted in BBC News, Chemistry Views, Phys.Org., Science Daily, Science Newline, R&D Magazine, The Chemical Daily, Kagaku Shimbun, Gendai Kagaku, Chemical Processing, Optronics Online, Wiley Science Café, EurekaAlert!, Science Codex, Breaking News, Medindia, ResearchSEA, Innovations Report, Crazy Chucks, News nom, News Locker, USA News, Bio-Medicine, e! Science News, Technobahn, Brunch News, Interesting Tech, Press News, Chemistry 2011.org, Health Medicine Network, BioPortfolio, News Dump, Regator, Coyne Chemical, topix, Business News, Interceder, Nets247, I4U News, Jersey Tribune, Health News, Red Orbit, Medicininfos, Medic finder, Locker Dome, Chemistry Times.
39. "2,4- and 2,5-Disubstituted Arylthiazoles: Rapid Synthesis by C–H Coupling and Biological Evaluation"  
Lohrey, L.; Uehara, T. N.; Tani, S.; [Yamaguchi, J.\\*](#); Humpf, H.-U.\*; Itami, K.\*  
**Eur. J. Org. Chem.** **2014**, 3387–3394.
40. "Manganese-Catalyzed Intermolecular C–H/C–H Coupling of Carbonyls and Heteroarenes"  
Hattori, K.; Ziadi, A.; Itami, K.; [Yamaguchi, J.\\*](#)  
**Chem. Comm.** **2014**, *50*, 4105–4107.  
Most Read Article (March, 2014)
41. "Late-Stage C–H Coupling Enables Rapid Identification of HDAC Inhibitors: Synthesis and Evaluation of NCH-31 Analogues"  
Sekizawa, H.; Amaike, K.; Itoh, Y.; Suzuki, T.\*; Itami, K.\*; [Yamaguchi, J.\\*](#)  
**ACS. Med. Chem. Lett.** **2014**, 582–586.  
Most Read Article (March, 2014)
42. "Diverse Modification of the 4-Methylphenyl Moiety of TAK-779 by Late-Stage Suzuki-Miyaura Cross-Coupling"  
Junker, A.; Schepmann, D.; [Yamaguchi, J.](#); Itami, K. Faust, A.; Kopka, K.; Wagner, S.; Wunsch\*, B.  
**Org. Biomol. Chem.** **2014**, *12*, 177–186.
43. "Programmed Synthesis of Arylthiazoles through Sequential C–H Couplings"  
Tani, S.; Uehara, T. N.; [Yamaguchi, J.](#); Itami, K.\*  
**Chem. Sci.** **2014**, *5*, 123–135.  
Most Accessed Articles (September–October 2013). Highlighted in SYNFACTS
44. "Isolation, Structure, and Reactivity of an Arylnickel(II) Pivalate Complex in Catalytic C–H/C–O Biaryl Coupling"  
Muto, K.; [Yamaguchi, J.\\*](#); Lei, A.\*; Itami, K.\*  
**J. Am. Chem. Soc.** **2013**, *135*, 16384–16387.
45. "Palladium-Catalyzed C–H and C–N Arylation of Aminothiazoles with Arylboronic Acids"  
Uehara, T. N.; [Yamaguchi, J.\\*](#); Itami, K.\*  
**Asian J. Org. Chem.** **2013**, 2,1973–2013 (Invited contribution).  
Mukaiyama Aldol Issue. Highlighted in Chemistry Views. Most Accessed Paper (No.1 in November 2013).
46. "C–H Alkenylation of Azoles with Enols and Esters by Nickel Catalysis"  
Lingkui, M.; Kamada, Y.; Muto, K.; [Yamaguchi, J.\\*](#); Itami, K.\*  
**Angew. Chem., Int. Ed.** **2013**, *52*, 38, 10048–10051.  
Highlighted in Newspapers (Chunichi, The Chemical Daily, Yahoo! News)
47. "Aromatic C–H Coupling with Hindered Arylboronic Acids by Pd/Fe Dual Catalysts"  
Yamaguchi, K.; Kondo, H.; [Yamaguchi, J.\\*](#); Itami, K.\*  
**Chem. Sci.** **2013**, 3753–3757.  
Most Accessed Articles (June 2013)
48. "Synthesis of Thiophene-Based TAK-779 Analogues by C–H Arylation"  
Junker, A.; [Yamaguchi, J.](#); Itami, K.\*; Wunsch, B.\*  
**J. Org. Chem.** **2013**, *78*, 5579–5586.
49. "Nickel-Catalyzed Direct Coupling of Heteroarenes"  
[Yamaguchi, J.\\*](#); Muto, K.; Amaike, K.; Yamamoto, T.; Itami, K.\*  
**J. Synth. Org. Chem. Jpn.** **2013**, *71*, 576–587 (Accounts).
50. "Decarbonylative C–H Biaryl Coupling"

- Yamaguchi, J.\*; Itami, K.\*  
**Kagaku** **2013**, 35–39 (Accounts).
51. “Recent Progress in Nickel-Catalyzed Biaryl Coupling”  
 Yamaguchi, J.\*; Muto, K.; Itami, K.\*  
**Eur. J. Org. Chem.** **2013**, 19–30 (Review).  
 Most Accessed Articles (January 2013)
52. “Improvement of  $\sigma$ 1 receptor affinity by late-stage C–H bond arylation of spiro cyclic lactones”  
 Meyer, C.; Neue, B.; Schepmann, D.; Yanagisawa, S.; Yamaguchi, J.; Würthwein, E.-U.; Itami, K.\*; Wünsch, B.\*  
**Bioorg. Med. Chem.** **2013**, *21*, 1844–1856.
53. “Pd-catalyzed direct C–H bond functionalization of spirocyclic sigma-1 ligands: generation of a pharmacophore model and analysis of reverse binding mode by docking into a 3D homology model of the sigma-1 receptor”  
 Meyer, C.; Schepmann, D.; Yanagisawa, S.; Yamaguchi, J.; Dal Col, V.; Laurini, E.; Itami, K.\*; Pricl, S.; Wünsch, B.\*  
**J. Med. Chem.** **2012**, *55*, 8047–8065.
54. “Decarbonylative C–H Coupling of Azoles and Aryl Esters: Unprecedented Nickel Catalysis and Application to the Synthesis of Muscoride A”  
 Amaike, K.; Muto, K.; Yamaguchi, J.\*; Itami, K.\*  
**J. Am. Chem. Soc.** **2012**, *134*, 13573–13576.  
 Highlighted in Newspapers (Chu-nichi, Asahi, The Chemical Daily, Yahoo!News, Mynavi-News, Nikkan kogyo, Kagaku Shinbun), Most Read Articles in August 2012
55. “Late-Stage C–H Bond Arylation of Spirocyclic sigma-1 Ligands for Analysis of Complementary sigma-1 Receptor Surface”  
 Meyer, C.; Schepmann, D.; Yanagisawa, S.; Yamaguchi, J.; Wünsch, B.; Itami, K.\*  
**Eur. J. Org. Chem.** **2012**, 5972–5979.
56. “Synthesis of Bioactive Compounds through C–H Bond Functionalization”  
 Yamaguchi, J.\*; Itami, K.\*  
**Fine Chemicals** **2012**, *41*, 38–44 (Review).
57. “Pd- and Cu-catalyzed C–H Arylation of Indazoles”  
 Hattori, K.; Yamaguchi, K.; Yamaguchi, J.\*; Itami, K.\*  
**Tetrahedron** **2012**, *68*, 7605–7612 (Invited contribution).
58. “Hindered Biaryls by C–H Coupling: Bisoxazoline-Pd Catalysis Leading to Enantioselective C–H Coupling”  
 Yamaguchi, K.; Yamaguchi, J.\*; Studer, A.; Itami, K.\*  
**Chem. Sci.** **2012**, *7*, 2165–2169.  
 Highlighted RSC Chemical Science blog, Most Read Articles in March and April 2012
59. “Mechanistic Studies on the Pd-catalyzed Direct C–H Arylation of 2-Substituted Thiophene Derivatives with Arylpalladium Bipyridyl Complexes”  
 Steinmetz, M.; Ueda, K.; Grimme, S.; Yamaguchi, J.; Kirchberg, S.; Itami, K.\*; Studer, A.\*  
**Chem. Asian J.** **2012**, *7*, 1256–1260.
60. “Nickel-Catalyzed C–H/C–O Coupling of Azoles with Phenol Derivatives”  
 Muto, K.; Yamaguchi, J.; Itami, K.\*  
**J. Am. Chem. Soc.** **2012**, *134*, 169–172.  
 Highlighted in Newspapers (Yomiuri, Chu-nichi, The Chemical Daily, Yahoo!News, NanotechJapan Nikkan kogyo, Kagaku Shinbun), Most Read Articles (January, 2012), Highlighted as a “SynStory” article in SYNFORM (April 2012), Highlighted in Chemical Engineering (Feb 2012)
61. “C–H Bond Functionalization: Emerging Synthetic Tools for the Synthesis of Natural Products and Pharmaceuticals”  
 Yamaguchi, J.\*; Yamaguchi, A. D.; Itami, K.\*  
**Angew. Chem., Int. Ed.** **2012**, *51*, 8960–9009 (Review).  
 Selected as the Cover of the Issue.  
 Highlighted in Chemistry Views. Most Accessed Articles (2011–2013).
62. “Synthesis of Dragmacidin D via Direct C–H Couplings”  
 Mandal, D.; Yamaguchi, A. D.; Yamaguchi, J.\*; Itami, K.\*  
**J. Am. Chem. Soc.** **2011**, *133*, 19660–19663.

Most Read Articles (November 2011), Highlighted in Chemistry World.

63. "Exploitation of an Additional Hydrophobic Pocket of  $\sigma_1$  Receptors: Late-stage Diverse Modifications of Spirocyclic Thiophenes by C–H Functionalization"  
Meyer, C.; Neue, B.; Schepmann, D.; Yanagisawa, S.; [Yamaguchi, J.](#); Würthwein, E.; Itami, K.\*; Wünsch, B.\*  
**Org. Biomol. Chem.** **2011**, *9*, 8016–8029.
64. "Enantioselective Total Syntheses of (–)-Palau'amine, (–)-Axinellamines, and (–)-Massadines"  
Seiple, I. B.; Su, S.; Young, I. S.; Nakamura, A.; [Yamaguchi, J.](#); Jørgensen, L.; Rodriguez, R. A.; O'Malley, D. P.; Gaich, T.; Kock M.; Baran, P. S.\*  
**J. Am. Chem. Soc.** **2011**, *133*, 14710–14726.  
Most Read Articles (October 2011)
65. "Nickel-Catalyzed C–H Arylation of Azoles with Haloarenes: Scope, Mechanism, and Applications to the Synthesis of Bioactive Molecules"  
Yamamoto, T.; Muto, K.; Komiyama, M.; Canivet, J.; [Yamaguchi, J.](#); Itami, K.\*  
**Chem. Eur. J.** **2011**, *17*, 10113–10122.  
Highlighted in SYNFACTS
66. "Synthesis of Bioactive Compounds through C–H Bond Functionalization"  
[Yamaguchi, J.](#)\*; Itami, K.\*  
**Catalysts and Catalysis** **2011**, *53*, 293–298 (Review).
67. "Oxidative C–H/C–H Coupling of Azine and Indole/Pyrrole Nuclei: Palladium Catalysis and Synthesis of Eudistomin U"  
Yamaguchi, A. D.; Mandal, D.; [Yamaguchi, J.](#)\*; Itami, K.\*  
**Chem. Lett.** **2011**, *40*, 555–557.  
Selected as "Editor's Choice". Most-Accessed Articles. Highlighted in *Angew. Chem. Int. Ed.*
68. "Oxidative Biaryl Coupling of Thiophenes and Thiazoles with Arylboronic Acids through Palladium Catalysis: Otherwise Difficult C4-Selective C–H Arylation Enabled by Boronic Acids"  
Kirchberg, S.; Tani, S.; Ueda, K.; [Yamaguchi, J.](#); Studer, A.\*; Itami, K.\*  
**Angew. Chem., Int. Ed.** **2011**, *50*, 2387–2391.  
Highlighted in SYNFACTS
69. "A General Catalyst for the  $\beta$ -Selective C–H Bond Arylation of Thiophenes with Iodoarenes"  
Ueda, K.; Yanagisawa, S.; [Yamaguchi, J.](#); Itami, K.\*  
**Angew. Chem., Int. Ed.** **2010**, *49*, 8946–8949.  
Highlighted in SYNFACTS
70. "Total Synthesis of Palau'amine"  
Seiple, I. B.; Su, S.; Young, I. S.; Lewis, C. A.; [Yamaguchi, J.](#); Baran, P. S.\*  
**Angew. Chem., Int. Ed.** **2010**, *49*, 1095–1098.  
Selected as VIP paper and Cover Picture in *Angew. Chem. Int. Ed.* Highlighted in *Nature*, C&EN, and Gendai-Kagaku. Most-Accessed Articles (Jan 2010, 6/2009~7/2010)
71. "Syntheses of Fumagillin and Ovalicin"  
[Yamaguchi, J.](#); Hayashi, Y.\*  
**Chem. Eur. J.** **2010**, *16*, 3884–3901 (Review).
72. "Asymmetric Total Synthesis of a Natural Product Using Catalytic Enantioselective Stereoablative Reactions"  
[Yamaguchi, J.](#)\*  
**J. Synth. Org. Chem. Jpn.** **2009**, *67*, 166–167 (Review).
73. "Fe-Catalyzed Oxidative Coupling of Heteroarenes and Methylamines"  
Ohta, M.; Quick, M. P.; [Yamaguchi, J.](#); Wünsch, B.\*; Itami, K.\*  
**Chem. Asian J.** **2009**, *4*, 1416–1419.  
Most-Accessed Articles (July 2009)
74. "Nickel-Catalyzed Biaryl Coupling of Heteroarenes and Aryl Halides/Triflates"  
Canivet, J.; [Yamaguchi, J.](#); Ban, I.; Itami, K.\*  
**Org. Lett.** **2009**, *11*, 1733–1736.  
Highlighted in SYNFACTS, Top 20 Most Cited Articles 2009–2011
75. "The Asymmetric Total Synthesis of (+)-Cytotrienin A, an Ansamycin-Type Anticancer Drug"  
Hayashi, Y.\*; Shoji, M.; Ishikawa, H.; [Yamaguchi, J.](#); Tamura, T.; Imai, H.; Nishigaya, Y.; Takabe, K.; Takeya,



H.; Osada, H.

**Angew. Chem., Int. Ed.** **2008**, *47*, 6657–6660.

Highlighted in SYNFACTS

76. “Total Synthesis of (±)-Axinellamines A and B”  
O’Malley, D. P.; Yamaguchi, J.; Young, I. S.; Seiple, I. B.; Baran, P. S.\*  
**Angew. Chem. Int. Ed.** **2008**, *47*, 3581–3583.  
Selected as VIP paper and Inside Cover in *Angew. Chem., Int. Ed.*
77. “Synthesis of 1,9-Dideoxy-pre-axinellamine”  
Yamaguchi, J.; Seiple, I. B.; Young, I. S.; O’Malley, D. P.; Maue, M.; Baran, P. S.\*  
**Angew. Chem., Int. Ed.** **2008**, *47*, 3578–3580.
78. “Direct Asymmetric  $\alpha$ -Amination of Cyclic Ketones Catalyzed by Siloxyproline”  
Hayashi, Y.\*; Aratake, S.; Imai, Y.; Hibino, K.; Chen, Q. -Y.; Yamaguchi, J.; Uchimaru, T.  
**Chem. Asian J.** **2008**, *3*, 225–232.
79. “Organocatalyst-Mediated Enantioselective Intramolecular Aldol Reaction Featuring the Rare Combination of Aldehyde as Nucleophile and Ketone as Electrophile”  
Hayashi, Y.\*; Sekizawa, H.; Yamaguchi, J.; Gotoh, H.  
**J. Org. Chem.** **2007**, *72*, 6493–6499.
80. “Total Synthesis of Marinomycins A-C and of Their Monomeric Counterparts Monomarinomycin A and iso-Monomarinomycin A”  
Nicolaou, K. C.\*; Nold, A. L.; Milburn, R. R.; Schindler, C. S.; Cole, K. P.; Yamaguchi, J.  
**J. Am. Chem. Soc.** **2007**, *129*, 1760–1768.
81. “Enantio- and Diastereoselective Total Synthesis of (+)-Panepophenanthrin”  
Matsuzawa, M.; Kakeya, H.; Yamaguchi, J.; Shoji, M.; Onose, R.; Osada, H.; Hayashi, Y.\*  
**Chem. Asian J.** **2006**, *1*, 845–851.
82. “Large Nonlinear Effect Observed in the Enantiomeric Excess of Proline in Solution and That in the Solid State”  
Hayashi, Y.\*; Matsuzawa, M.; Yamaguchi, J.; Yonehara, S.; Matsumoto, Y.; Shoji, M.; Hashizume, D.; Koshino, H.  
**Angew. Chem., Int. Ed.** **2006**, *45*, 4593–4597.
83. “Concise Enantio- and Diastereoselective Total Syntheses of Fumagillol, RK-805, FR65814, Ovalicin, and 5-Demethylovalicin”  
Yamaguchi, J.; Toyoshima, M.; Shoji, M.; Kakeya, H.; Osada, H.; Hayashi, Y.\*  
**Angew. Chem., Int. Ed.** **2006**, *45*, 789–793.
84. “Determination by Asymmetric Total Synthesis of The Absolute Configuration of Lucilactaene, a Cell Cycle Inhibitor in p53-Transfected Cells”  
Yamaguchi, J.; Kakeya, H.; Uno, T.; Shoji, M.; Osada, H.; Hayashi, Y.\*  
**Angew. Chem., Int. Ed.** **2005**, *44*, 3110–3115.
85. “A Highly Active 4-Siloxyproline Catalyst for Asymmetric Synthesis”  
Hayashi, Y.\*; Yamaguchi, J.; Hibino, K.; Sumiya, T.; Urushima, T.; Shoji, M.; Hashizume, D.; Koshino, H.  
**Adv. Synth. Catal.** **2004**, *12*, 1435–1439.  
Highlighted in *Letters in Organic Chemistry*, **2005**, *2*, **5**, 392-397 (News and Views)
86. “Structure-Activity Relationships of Epolactaene Derivatives”  
Nagumo, Y.; Kakeya, H.; Yamaguchi, J.; Uno, T.; Shoji, M.; Hayashi, Y.\*; Osada, H.  
**Bioorg. Med. Chem. Lett.** **2004**, *14*, 4425–4429.
87. “Direct Proline-Catalyzed Asymmetric  $\alpha$ -Aminooxylation of Aldehydes and Ketones”  
Hayashi, Y.\*; Yamaguchi, J.; Sumiya, T.; Hibino, K.; Shoji, M.  
**J. Org. Chem.** **2004**, *69*, 5966–5973.
88. “Direct Proline-Catalyzed Asymmetric  $\alpha$ -Aminooxylation of Ketones”  
Hayashi, Y.\*; Yamaguchi, J.; Sumiya, T.; Shoji, M.  
**Angew. Chem., Int. Ed.** **2004**, *43*, 1112–1115.  
Selected as VIP paper in *Angew. Chem., Int. Ed.*
89. “Direct Proline Catalyzed Asymmetric  $\alpha$ -Aminooxylation of Aldehydes”  
Hayashi, Y.\*; Yamaguchi, J.; Hibino, K.; Shoji, M.  
**Tetrahedron Lett.** **2003**, *44*, 8293–8296.
90. “Asymmetric Total Synthesis of Pseurotin A” Hayashi, Y.\*;

Shoji, M.; Yamaguchi, S.; Mukaiyama, T.; Yamaguchi, J.; Kakeya, H.; Osada, H.

**Org. Lett.** **2003**, *5*, 2287–2290.

91. “Asymmetric Total Synthesis of (-)-Azaspiroene, a Novel Angiogenesis Inhibitor”

Hayashi, Y.\*; Shoji, M.; Yamaguchi, J.; Sato, K.; Yamaguchi, S.; Mukaiyama, T.; Sakai, K.; Asami, Y.; Kakeya, H.; Osada, H.

**J. Am. Chem. Soc.** **2002**, *124*, 12078–12079.

92. “The Diastereoselective Asymmetric Total Synthesis of NG-391, a Neuronal Cell-Protecting Molecule”

Hayashi, Y.\*; Yamaguchi, J.; Shoji, M.

**Tetrahedron** **2002**, *58*, 9839–9846.

93. “Diastereoselective Total Synthesis of Both Enantiomers of Epolactaene”

Hayashi, Y.\*; Kanayama, J.; Yamaguchi, J.; Shoji, M.

**J. Org. Chem.** **2002**, *67*, 9443–9448.

94. “Total Synthesis of (+)-Epoxyquinols A and B”

Shoji, M.; Yamaguchi, J.; Kakeya, H.; Osada, H.; Hayashi, Y.\*

**Angew. Chem., Int. Ed.** **2002**, *41*, 3192–3194.

Selected as Hot paper in *Angew. Chem., Int. Ed.*